Kentucky Department of Education
Science Adoption 2008-2014

Provided by the Publisher				Provided by the Publisher
ISBN - **9780130238405**		Publisher -	**Pearson Education Inc. publishing as Pearson AGS Globe**	
Concepts and Challenges, Physical Science, Student Edition				
Type - P1	Author - Bernstein, Schachter, Winkler, Wolfe			
Copyright - 2003	Edition - 4th	Readability -	Grades 5, 6	
Course - Physical Science		Grade(s) -	6, 7, 8, 9, 10, 11, 12	
Teacher Edition ISBN if applicable			9780130238511	

Overall Recommendation:

☐ **Recommended as Basal**

Overall Strengths, Weaknesses, Comments:

The overall recommendation for this text book is moderate because it meets a lot of the requirements below, but it does not excell in most of them. This book requires the learner to have a basic foundation in biological science. For this reason, this book might be better suited for students in grades 6-8. The book presents a lot of factual information buildinig in a limited number of learning extensions or enrichment opportunities. This text is designed for an Earth Science course focused on learning the basics or used a remedial course at the high school level.

CRITERIA
This basal resource …

A. Encompasses KY Content Standards & Grade Level Expectations	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

☐ Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 7 Big Ideas of science to the following extent:

a)	Structure and Transformation of Matter	☒ Strong	☐ Moderate	☐ Little	☐ N/A
b)	Motion and Forces	☒ Strong	☐ Moderate	☐ Little	☐ N/A
c)	The Earth and the Universe	☐ Strong	☐ Moderate	☐ Little	☒ N/A
d)	Unity and Diversity	☐ Strong	☐ Moderate	☐ Little	☐ N/A
e)	Biological Change	☐ Strong	☐ Moderate	☐ Little	☒ N/A
f)	Energy Transformation	☒ Strong	☐ Moderate	☐ Little	☐ N/A
g)	Interdependence	☐ Strong	☐ Moderate	☐ Little	☒ N/A

2) Addresses content-specific enduring understandings from the related Program of Studies ☐ Strong ☐ Moderate ☐ Little ☐ N/A

standards.

3) **Addresses content-specific skills and concepts from the related Program of Studies standards.** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

4) **Content addressed is current, relevant and non-trivial** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

5) **Provides opportunities for critical thinking/reasoning** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

6) **Strengths, Weaknesses, Comments:**
- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

This textbook is specifically written for a Physical Science class and is not a comprehensive instructional tool that reinfornces the entire KY Program of Studies. The concepts presented in this text are factual and provides teachers with opportunity to assess students at various depths of knowledge.

B. Functionality & Suitability	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) **Suitability** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) **Content quality** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community

3) **Connections to Literacy** ☒ Strong ☐ Moderate ☐ Little
Note: may apply to either student or teacher editions

- Employs a variety of reading levels and is grade/level appropriate
- Contains pre, during, post reading activities
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- Engaging text- does the text facilitate learning?
- Does understanding the text require having performed the imbedded activities?

4) Connections to Technology ☒ Strong ☐ Moderate ☐ Little

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data

5) Support for Diverse Learners ☒ Strong ☐ Moderate ☐ Little

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
  Note: may apply only to teacher edition

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The book does an excellent job at embedding literacy strategies throughout the text. It includes pre, during, and post reading strategies. Most of the during reading assesments occur at the end of each section, and not at the end of each lesson. Teachers may need to match each of the questions in each of the subsections to the appropriate question identified in the assessment at the end of each subsection, so that students may focus better on the content. It provides students with opportunities to use scientific technology to explore and collect data, as well as analyze information and draw their own conclusions. It provides adequate support for diverse learners, although teachers may need to explore more options for differentiating instruction for all students, to either enrich the program or create a tiered learning experience for students who have difficulty in learning.

C. Supports Inquiry and Skill Development	☒ Strong Evidence ☐ Moderate Evidence ☐ Little or No Evidence

1) Promotes Inquiry, research and Application of Learning ☐ Strong ☐ Moderate ☐ Little

- Provides opportunities for inquiry and research that includes activities such as self-selecting topics, formulating authentic questions, gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, time lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.
  Note: may apply to either teacher or student edition

2) Skill Development ☒ Strong ☐ Moderate ☐ Little

- Provides opportunities to make sense of data

- Provides opportunities for critical thinking and reasoning (analyze arguments, distinguish fact/opinion, recognize bias)
- Provides opportunities to examine a range of types of evidence
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving
  Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

This text includes opportunities for students to perform research activities that open the door for them to use or apply higher level cognitive skills. Students are expected to design and perform experiments that requires them to analyze information and draw conclusions. Throughout the text there are opportunities for students to predict, draw conclusions, evaluate, form synthesis, and extend their ideas to support their reasoning based on the information being learned. Students are expected to use the data or at least apply it to real life situations and solve real world problems.

D. Supports Best Practices of Teaching and Learning	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Engages Students ☐ Strong ☐ Moderate ☐ Little

- Includes content geared to the needs, interests, and abilities of students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated
  Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction ☒ Strong ☐ Moderate ☐ Little

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels
  Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

The textbook shows how biology is connected to the life of the student, as well as shows the impact and connection that biology has on the workforce. This text book does provide assessments that are challenging and range from DOK 1 to DOK 3. Although this textbook does an excellent job of scaffolding the assessments, it doesn't

focus on differentiating instruction. Teachers may have to spend time differentiating instruction for students. The question scheme in this book is very cohesive in that it sets the stage for transitioning questions from a lower to a higher level of thought or depth of knowledge.

E. Has an Organization/ Format that Supports Learning and Teaching	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Organizational Quality ☐ Strong ☐ Moderate ☐ Little

- Print and/or electronic materials present minimal barriers to learners
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size

Included media are durable, easy to use and have technical merit

- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text) ☒ Strong ☐ Moderate ☐ Little

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The classroom reference binder includes worksheets and other assessments that are easily accessible and provides the teacher with a science resource written in spanish. The titles, subtiitles, and bold vocabulary words are ideal for middle school science classes.

F. Has available Ancillary/ Gratis Materials *Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F*	☐ **Strong Evidence** ☒ **Moderate Evidence** ☐ **Little or No Evidence**

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use

- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

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